



GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

March 28, 2014

Certified Return Receipt
7011 2970 0001 8828 1412

Michael Dalley
Stake and Parson Companies
89 West 13490 South, Suite 100
Draper, Utah 84020

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Staker & Parsons Company, Keigley Quarry Mine, Task #5859, M/049/0001, Utah County, Utah

Dear Mr. Dalley:

The Division of Oil, Gas and Mining has completed a review of the referenced Notice of Intention to Commence Large Mining Operations (Notice) for the Keigley quarry, which was received January 31, 2014. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable minerals rule heading; please format your response in a similar fashion. Please address only those items requested in the attached technical review by sending replacement pages of the original mining notice using redline and strikeout text. After the notice is determined technically complete, the Division will ask that you submit two clean copies of the complete and corrected plan. Upon final approval of the permit, both copies will be stamped "approved" and one will be returned for your records.

Please submit your response to this review by May 2, 2014.

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261, or the members of the review team regarding specific questions: April Abate, at 801-538-5214, Lynn Kunzler at 801-538-5310, or Wayne Western at 801-538-5263. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: AA: eb
Attachment: Review
p:\groups\minerals\wp\m049-utah\m0490001-keigleyquarry\final\noi-5859-5998-03172014.doc



**INITIAL REVIEW OF AMENDED NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS
STAKER & PARSONS
KEIGLEY QUARRY**

**M/49/0001
March 28, 2014**

R647-4-104 – Surface and Mineral Owners

Land/Mineral Owner Notification

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1	Page 9	This page includes a question asking whether the land owners have been notified. Please answer "yes" to this question. The Division notified the surface and mineral owners when the Notice was originally approved.	lk	

R647-4-105 - Maps, Drawings & Photographs

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
2	Maps 1 and 2	Please state in the text in Section 647-4-105.1.12 which of the following are or are not present within the permit boundary or within 500 feet of the permit boundary: perennial streams, springs and other bodies of water, landing strips, electrical transmission lines, oil and gas pipelines, and other existing surface or subsurface facilities.	whw	
3	Maps 1, 2 & 8	Please include a scale on these maps.	aa	
4	Map 2	Topographic base map should be approximately 1" = 2,000 feet as specified in Rule R647-4-105.	aa	
5	Map 2 & 5	Topographic maps should be at a scale of one inch equals 300 feet. This may require multiple maps or having maps on larger sheets.	whw	
6	Maps 2, 3, and 3A	Site access map and land ownership maps could easily be combined. Annotated aerial maps are preferred over topographic maps. Since bonded disturbance area is shown on Map 3, Map 3A could be eliminated.	aa	
7	Maps 3 thru 7	The scale bar on the maps was less than one inch. The Division cannot verify the acreage area without accurately scaled maps.	aa	
8	Map 3A	Please state in the text in Section R647-4-105.1.14 if there are any previously disturbed areas in or around the permit area for which the Operator is not responsible for reclamation.	whw	
9	Map 6	The reclamation treatment map should depict which roads and hydrologic structures will remain after reclamation. The map should also show which roads and structures will be reclaimed.	aa	
10	Map 7	Cross section should be on interval of every 600 feet.	whw	

Initial Review
Page 3 of 5
M/049/0001
March 28, 2014

R647-4-106 - Operation Plan

106.2 - Type of operations conducted, mining method, processing etc.

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
11	Pg. 12	The hot mix asphalt plant needs to be included in the Notice. It is within the permit boundary, associated with mining operations, and will ultimately need to be reclaimed. It needs to be accounted for in the demolition surety calculations.	aa	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
12	106.5	The Notice includes discussion of the soil types outside the quarry, and this needs to be extrapolated to soils in the permit boundary. The rule requires a description of existing soil types as well as the location and extent of topsoil. The section currently only addresses topsoil.	aa	

106.7 - Existing vegetation - species and amount

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
13	Page 14	It is suggested that the vegetation survey be completed during late May – early June.	lk	

106.9 - Location & size of ore, waste, tailings, ponds

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
14	Pg. 16	Ore stockpiles need to be located on a map. The ore materials listed in Table 4 should be located on the appropriate facilities maps 4-4D.	aa	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	Pg. 19 Appendix F	The stormwater management plan should address the surface operations outside of the pit. For example, the dust mill, crusher, hot plant, and explosive storage areas do not appear to have any drainage control structures that will effectively manage stormwater runoff around or within these disturbance areas. The stormwater management plan should describe how these structures will both manage stormwater runoff from the disturbance areas as well as how stormwater from undisturbed areas will be routed around these disturbances. Typically standard engineering practice for hydrologic structures such as ditches, culverts, sediment ponds, etc., are designed for the regional 100-year, 24-hour storm. A design plan for these hydrologic structures servicing these disturbance areas should be formulated in the stormwater pollution prevention plan SWPPP, and the features should then be added to the maps as per R647-4-105.3.15.	aa	

109.2 - Impacts to threatened & endangered wildlife/habitat

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
-----------	------------------------	----------	----------	---------------

Initial Review
Page 3 of 5
M/049/0001
March 28, 2014

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
16	Page 19	Loss of 300 acres of habitat is an impact. Please correct statements that there is no threat to wildlife habitat.	lk	

109.3 - Impacts on existing soils resources

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
17	Page 19	The discussion in this section should be moved to R647-4-106.5 and .6, and referenced under R647-4-109.5 as it relates to mitigating the loss of topsoil. The real impact to the soil resources is that the soil material was never salvaged when the operation began prior to the mining rules, and thus lost.	lk	

109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
18	Omitted	This section should briefly discuss and reference the plans to mitigate impacts to the various resources, and a commitment to follow the, mitigation plans.	lk	
19	Page 20	See comments under 109.3 for soil resources.	lk	
20	Page 20	The Division suggests moving this discussion to Section 109.4. Cultural resources (if they existed on site) have been lost. There is no need for additional cultural resource inventories.	lk	

R647-4-110 - Reclamation Plan

110.1 - Current & post mining land use

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
21	Pg. 21	The Notice says the post mining land use will be the land use that was current when the operation began in the 1970s, which was grazing and wildlife habitat. Given the present conditions in the vicinity of the mine, the adjacent land use consists of mixed agricultural and rural residential land use. Given that the quarry cannot feasibly be fully reclaimed, it may be better suited for a mixed residential/commercial use. The Division suggests changing the wildlife and grazing use as a reclamation standard for a post-mining land use.	aa	

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
22	Plate 7 and Section R647-4-110.2	On Plate 7, the highwalls are shown to be 100 feet high at a 1H:1V slope with 20-foot benches every 20 feet, but Section R47-4-110.2 says all highwalls will be left no steeper than 2H to 1V. Please correct this apparent contradiction.	whw	
23	Pg. 21	The Division recommends that topsoil (or plant growth material) be placed at a minimum depth of six inches on the quarry floor and other disturbance areas. The volume of topsoil needed should be calculated and added to the topsoil management plan (see comment #18).	aa & lk	

110.3 - Description of facilities to be left (post mining use)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
24	Page 22	The hot mix asphalt plant needs to be included in the facilities for the mine and bonded for removal/reclamation. The Division could allow it to remain if, at the time of reclamation, it can be demonstrated that it has post-mining utility.	lk	
25	Page 22 – Table 7	The Notice says no surface buildings will remain after reclamation, but this table contradicts this statement and lists many buildings (and other facilities) that will remain. The plan needs to show removal of all buildings. The Division could allow them to remain if, at the time of reclamation, it can be demonstrated that they have utility for the postmining land use. Please correct this table to show all buildings will be removed at the time of reclamation.	lk	

110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
26	Page 25	There is a reference to section 106.5 for analytical results of tested topsoil and depth of replacement. That section does not include the referenced information. Please provide it.	lk	
27	Map 6	(Reclamation Treatments Map) – This map correctly shows the area of the hot plant as being reclaimed (see comments under 110.3). Please correct statements in the Notice that the hot plant will remain.	lk	

R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
28	R647-4-113 Surety	The Division will require a detailed reclamation cost estimate. The Division has worksheets for reclamation cost estimates. At a minimum please prepare a cost estimate for demolition and removal of all structures. The Division usually uses R. S. Means costs for demolition. Please include the cost for disposal of debris. The Division will allow steel to be disposed of at a recycle plant for no disposal cost. When determining the demolition costs, please use the same name and numbering system as used in the Notice.	whw	
29	R647-4-113 Surety	Please provide detailed information for earthmoving costs. The earthmoving costs should be based on worst case scenario. Those costs must include topsoil placement and all backfilling and grading.	whw	